

AETEEMS 2017, 10 - 11, JULY 2017, MOHAMMEDIA MOROCCO

Monday 10-07

17h00 – 20h00

Panel discussions & Reception invited Planary

Tuesday 11-07

8h00 – 9h00

Registration

9h00 – 9h30

Opening Ceremony

9h30 – 11h00

Plenary Lectures

Chair : Mouhayedine TLEMCANI

9h30.Tue Modulation of nonlinear optical response in some selected azo-based organometallic Complexes” versus the metal functionalization and conjugation length

Prof. Bouchta SAHRAOUI, (University of Angers, France)

10h00.Tue Modeling additive manufacturing process; Case of the SLS polymer

Prof. M'hamed. BOUTAOUS, (INSA, Lyon, France)

10h30.Tue First Solar Energy Platform for Training, Research, Innovation and Clean Electricity Production at Public University in Morocco

Prof. Abdelfettah BARHDADI, (University Mohamed V of Rabat, Morocco)

11h00 – 11h20

Coffee Break

11h20 – 13h20

Oral Lectures

Session 1 **Materials Sciences and Engineering****Chair :Benyounes Oukarfi**

11h20.Tue O1 DFT study of structural and electronic properties of TiO₂ using GGA and mBJ approximations.

Mohamed AAZI, Faculty of Sciences and Technologies, Hassan II University of Casablanca. Mohammedia, Morocco

11h35.Tue O2 The improvement of the experimental method by Taguchi's methode to elaborate the CdS doped In by spray pyrolysis technique.

Youssef Arba, University of Hassan II, Casablanca, Morocco

11h50.Tue O3 Firefly Algorithm for Solving Load Flow Problem

Mohamed Bezza, Faculty of Sciences and Technology of Mohammedia, Hassan II University of Casablanca Mohammedia, Morocco

12h05.Tue O4 Elaboration and characterization of thin layers based on CIS and CIGS by the electrodeposition technique for photovoltaic application.

Amal BOUICH, Université Hassan II Mohammédia Casablanca, FST Mohammedia

12h20.Tue O5 DFT study of structural and optical properties of Tin Dioxide (SnO₂).

I. BZIZ, Faculty of Sciences and Technologies, Hassan II University of Casablanca. Mohammedia, Morocco

12h35.Tue O6 Electrical conduction in the two dimensional p-GaAs at very low temperature.

Asmaa Chakhmane, Faculty of Sciences and Technology of Mohammedia, Morocco

12h50.Tue O7 Elaboration of gas sensors using ZnO material.

Zahira El khaliidi, FST Mohammedia, Hassan II University, Morocco

13h05.Tue O8 Determination of Structural and Optical Parameters of TiO₂:Cu Thin Prepared by Dip Coating Films

Z.Essalhi, FSTM Hassan II Casablanca University, Mohammedia, Morocco

Session2 **Energy and Power Engineering****Chair : Mohamed Monkade**

11h20.Tue O13 MPPT based artificial intelligence for photovoltaic systems

Abouadane Hafsa, Faculty of Sciences and Technologies, Hassan II University of Casablanca. Mohammedia, Morocco

11h35.Tue O14 The electromechanical conversion of vibratory energy by flexible piezoelectric composite

Sarah Aboubakr, National school of applied sciences, El jadida, Morocco

11h50.Tue O15 Dimensioning a speed multiplier of a wind turbine

El Hassan Achouyab, ENSET Mohammedia, Hassan II University of Casablanca Mohammedia, Morocco

12h05.Tue O16 Comparative study of methods for predicting the power output of photovoltaic panels based on artificial neural networks according to meteorological parameters

Hamza Ali Ou Salah, Faculty of Sciences and Techniques, Hassan II Casablanca University, Morocco

12h20.Tue O17 Implementation of the fuzzy logic for the management of a multi-source renewable energy system

Aoukach Basma, Faculty of Sciences and Technologies, Hassan II University of Casablanca. Mohammedia, Morocco

12h35.Tue O18 In The Way Of Storing Hydrogen : A Conception And 2d Simulation Of Hydrogen Absorption In A Metal Hydride Storage Reactor

A. Belghiti Laboratoire des Sciences de l'Ingénieur pour l'Energie, Ecole Nationale des Sciences Appliquées d'El Jadida, BP 1166, EL Jadida Plateau 24002, Maroc

12h50.Tue O19 Numerical Modeling of the Quantum Dot Intermediate Band Solar Cell with the Finite Difference Approach

Noureddine Ben Afkir, Faculty of Sciences and Technology of Mohammedia, Morocco

13h05.Tue O20 Study of an Earth Air Heat Exchanger for the Air Conditioning in Buildings

Choab Noureddine, FST Mohammedia, Hassan II Casablanca University Casablanca, Morocco

13h30 – 14h30

Lunch

14h30 – 16h30

Plenary Lectures

Chair : M'hamed. Boutaousi

14h30.Tue Virtual Instrumentation: Impedance Measurements

Prof. Mouhayedine TLEMCANI, (University of Evora, Portugal)

15h00.Tue Introduction aux Nanomatériaux et Opportunité d'application pour le Photovoltaïque

Prof. Izeddine ZORKANI, (Sidi Mohamed Ben Abdellah University, Morocco)

15h30.Tue Traitement des eaux usées domestiques par voie aérobie : performances et limites

Cas des biofiltres à culture fixe

Prof. Brahim LEKHLIF, (Hassania School of Public Works, Morocco)

16h00.Tue Numerical studies of natural convection in cavity

Prof. Shihe Xin, (INSA, Lyon, France)

16h30 – 16h50

Coffee Break

16h50 – 19h05

Oral Lectures

Session 4 Environnemental Engineering Chair : Latifa Mouhir	Session 2 Energy and Power Engineering Chair : Rabie El Otmani	Session 3 Optical Materials Chair : El Houssine Atmani
16h50.Tue O36 Removal colour from tannery wastewater: modelling the absorbance at 254 nm by the experimental design M. Assou, University Hassan II of Casablanca Morocco	16h50.Tue O21 Improved method of Levenberg-Marquardt combined with simulated annealing for parametric identification of solar cell double diode model Fayrouz Dkhichi, Faculty of Sciences and Techniques, Hassan II Casablanca University, Mohammedia, Morocco	16h50.Tue O30 Linear optical properties of three organometallic compounds Aouatif Aamoum, Faculty of Science, University Chouaib Doukkali, El Jadida, Morocco
17h05.Tue O37 Effect of the mixing velocity and the active chlorine concentration in anolyte on the indirect electrochemical oxidation of the Acid Red35 dye N. AZEROUAL, Faculty of Sciences and Techniques of Mohammedia, Hassan II University of Casablanca, Morocco	17h05.Tue O22 Energetic and exergetic analysis and performance evaluation of a photovoltaic thermoelectric hybrid system Mustapha El Miiles, Faculty of Sciences and Techniques, Hassan II Casablanca University, Mohammedia, Morocco	17h05.Tue O31 Calculation of the diffusion coefficient and the Root Mean Square of temperature in a heated turbulent medium using an optical method Sara Borji, Faculty of Sciences and Technology, Hassan II University of Casablanca, Mohammedia, Morocco
17h20.Tue O38 Modelling of dielectric dispersion of waste water urban rejected without any previous treatment using an electrical equivalent circuit E. Chahid, Université Chouaib Doukkali, El Jadida, Maroc	17h20.Tue O23 Wave Energy Recovery from Electroactive Polymers Zineb Ezzerouti, Faculty of Sciences and Techniques, Hassan II Casablanca University, Mohammedia, Morocco	17h20.Tue O32 DFT study of structural, electronic and optical properties of highly mismatched ZnS _{1-x} O _x alloys Adil Es-Smaili, Faculty of Sciences and Technology, Hassan II University of Casablanca, Mohammedia, Morocco
17h35.Tue O39 Mathematical modeling of adsorption of Co ²⁺ ions on sugarcane bagasse Said Elanza Faculty of Sciences, University Ibn Tofail, Kentia, Morocco	17h35.Tue O24 Production study of a grid connected PV plant Located in Three Moroccan Cities Amine Haibaoui, Faculty of Sciences and Techniques, Hassan II Casablanca University, Mohammedia, Morocco	17h35.Tue O33 First principle investigations and Boltzmann model of the optical, electrical and transport properties of pure ZnSe in the cubic phase zinc blende A. Rachidi Laboratory of Condensed Matter and Renewable Energies, Department of Physics, University Hassan II Casablanca, Morocco
17h50.Tue O40 Numerical Modeling of the Radial Profiles of Axial Velocity using a Polynomial Development S.Hamdoun, Hassan II University - Laboratory, SSDIA ENSET, Mohammed, Morocco	17h50.Tue O25 The direct power control improvement of a DFIG using a constant switching frequency algorithm Hicham Lhachimi, Faculty of Sciences and Techniques, Hassan II Casablanca University, Mohammedia 20650, Morocco	17h50.Tue O34 Study of new synthesized organic molecules and their optical properties Zouhair Sofiani, Faculty of Sciences and Technology, Hassan II University of Casablanca, Mohammedia, Morocco
18h05.Tue O41 Effect of the inter-electrode distance on the performance of the elimination of turbidity in surface waters by electrocoagulation in an airlift reactor T. Ntambwe, FST Mohammedia, Université Hassan II de Casablanca, Mohammedia, Maroc	18h05.Tue O26 Wave energy harvested by using electro-active polymers Z. Malki, National Engineering School of Applied Sciences. Chouaib Doukkali University of El Jadida, El Jadida, Morocco	18h05.Tue O35 Nonlinear optical response in some selected azo-based organometallic complexes Said Taboukhat, University of Angers, Angers, France
18h20.Tue O42 Hospital effluent issue in Morocco: Sustainable treatment options for Mother-child Asmaa Qadouri Faculty of Science and Techniques of Mohammedia, Université Hassan II de Casablanca, Morocco	18h20.Tue O27 Modeling of the energy harvesting using Polyurethane/Lead Zirconate Titanate composites Abdelkader Rjafallah, National Engineering School of Applied Sciences. Chouaib Doukkali University, El Jadida, Morocco	Session1 Materials Sciences and Engineering Chair Mohamed El Jouad
18h35.Tue O43 Kinetic adsorption of Salicylic Acid and Clofibric Acid onto Modified Activated Carbon N. TAOUFIK, Faculty of Science and Techniques of Mohammedia, Université Hassan II de Casablanca, Morocco	18h35.Tue O28 Phase-change material effect on temperature evolution of the photovoltaic system A.SELLAMI, National Engineering School of Applied Sciences. Chouaib Doukkali University, El Jadida, Morocco	18h20.Tue O09 Computational studies of the stirred tank design effect on the phosphate slurry flow characteristics Z.HAIT, National School of Applied Sciences, University of Chouaib Doukkali, El Jadida, Morocco
18h50.Tue O44 Removal of metal ions Fe ²⁺ and Cu ²⁺ from synthetic wastewater by adsorption onto Eucalyptus leaves Hamid Taouil, Faculté des Sciences Ben M'sik. Université Hassan II de Casablanca, Maroc	18h50.Tue O29 Underwater wireless power transfer using microwave or electromagnetic: transmission of electrical energy without wires Nabil Sofiani, Superior Technical School of Telecommunication Engineering, University of Málaga, Spain.	18h35.Tue O10 18h50.Tue Utilization of precipitation wet method for synthesis of apatite silicated respecting the following model Ca ₁₀ (PO ₄) _{6-x} (SiO ₄) _x (OH) _{2-x} H. LABJAR, Faculty of Sciences and Technology University Hassan II Casablanca, Mohammedia, Morocco
		19h05.Tue O11 An analytical and experimental approach on the effect of corrosion on strands response Amal TIJANI, FST Mohammedia, Hassan II University of Casablanca, Mohammedia, Morocco
		19h20.Tue O12 Elaboration and characterization of CZTS thin films by dip coating technique for photovoltaic applications A. ZITI, University Hassan II Casablanca, FSTM, Morocco

19h00 – 19h45

Poster Session

19h45 – 20h00

Closing Ceremony

POSTER SESSION TUESDAY 11 – JULY 2017 MOHAMMEDIA MOROCCO

Chairs : Abderrahim FAKKAR, Said Bied, Adil DANI, Laasri Said, Mahmoud El Mouden, Zouhair Soufiani

N°	Title	Surname	Name	Institution
Tue.P.1	Modeling and experimental absorption of water in the wood to a single dimension	Rachid	ATMANI	Faculty of Sciences Ben M'sik. Hassan II University of Casablanca
Tue.P.2	Degradation of acid red35 dye by anolyte in an internal loop airlift reactor: effect of active chlorine concentration and injected air flow	Naima	AZEROUAL	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.3	Atmospheric plasma for thin film deposition	Abdelkrim	BATAN	Faculty of Sciences and Techniques Errachidia. Moulay Ismail University
Tue.P.4	Analysis of relaxation processes and low frequency dispersion of soil	El Ghaouti	CHAHID	Faculty of Sciences. Chouaib Doukkali University. El Jadida
Tue.P.5	Investigation of optical properties of zno doped Ni	Hajar	CHERRAD	Faculty of Sciences. Ibn Tofail University. Kenitra
Tue.P.6	Elaboration and Characterization of Solar Cells Based on Perovskite Materials	Karim	CHOUKRALLAH	Faculty of Sciences Ain Chock. Hassan II University of Casablanca
Tue.P.7	Simulation and performance evaluation of different solar PV system in Mohammedia , Morocco	Abderrazzak	ELAMIM	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.8	Optimization of physicochemical parameters used in the removal of Pb ²⁺ ions from aqueous solutions by the sugarcane bagasse	Said	ELANZA	Faculty of Sciences. Ibn Tofail University. Kenitra
Tue.P.9	Consumption analysis of individual appliances energy using PCA and classifiers	Cherraqi	ELBOUZZAOUI	Mohammedia Engineering School. Mohamed V University. Rabat
Tue.P.10	Vibration energy harvesting with interdigitated electrodes for gas detection	Nada	EL BOUZIANI	National School of Applied Sciences. Chouaib Doukkali University. El Jadida
Tue.P.11	Spray deposition of Sn:In ₂ S ₃ thin films for solar cell applications	Samira	ELFARRASS	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.12	Implementation of constructed wetlands for the recycling of purification station sludges	Mustapha	EL HAFIDI	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.13	Mathematical modeling of mass spring's system: A hybrid speed bumps application for mechanical energy harvesting	Chouaib	ENNAWAOU	Ecole Nationale Des Sciences Appliquées El Jadida
Tue.P.14	Numerical Simulation of Multijunction CZTS Solar Cell by SCAPS 1D & AMPS-1D	Ali	FADDOULI	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.15	Comparison of CZTS-based solar cells and CIGS-based solar cells by the simulator SCAPS-1D	Youness	FARFOUR	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.16	Phonons of the free surface Cu(100)	Hassan	GRIMECH	Faculty of Sciences and Technologies, Sultan Moulay Slimane University. Beni Mellal
Tue.P.17	Numerical Modeling of the Radial Profiles of Axial Velocity using a Polynomial Development	Sanaa	HAMDOUN	ENSET Mohammedia. Hassan II University of Casablanca
Tue.P.18	A Rule-based energy management system for collaborative Nanogrids	Meryem	HAMIDI	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.19	Study of landfills: characterization, management, impacts and valorization	Zineb	HAMRI	Faculty of Sciences and Techniques of Mohammedia

Tue.P.20	Experimental study of the effect of bio-loading on the compatibility of polymers: case of poly-vinyl chloride	Mustapha	JAMMOUKH	Normal superior school of technical education, Mohammedia, Morocco
Tue.P.21	Study of the different methods of passive cooling of the photovoltaic panels	Fatima Azza-hraâ	KABIL	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.22	Mechanical behavior of concretes based of sediment of dam reservoirs	Ali	KERDAD	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.23	Nonlinear optical properties of new synthesized conjugated organic molecules based on pyrimidine and oxazepine	Souad	KHANNYRA	Faculty of Sciences. Ibn Tofail University. Kenitra
Tue.P.24	Using the ADM to the choice of DMP treatment process in provincial hospitals	Monceff	KHAZRAJI	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.25	Ab initio calculations and experimental study of $\text{CuIn}_{1-x}\text{Ga}_x\text{S}_2$ thin films deposited using chemical spray pyrolysis method	Ahmed	KOTBI	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.26	Ab-initio physical properties calculations of chalcopyrite and kesterite materials : CIS and CZTS	Soufiane	KRIK	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.27	Study of Effect on Resonance Frequency of Piezoelectric Cantilever Based on PMN-PT with Proof Mass for Energy Harvesting	Houda	LIFI	National School of Applied Sciences. Chouaib Doukkali University. El Jadida
Tue.P.28	Numerical Study on the Thermal Performance in Building Envelopes Incorporating Phase Change Material	Amal	LOUANATE	National School of Applied Sciences. Chouaib Doukkali University. El Jadida
Tue.P.29	A New effective method of MPPT for PV array under nonuniform illuminations	Oumaima	MESBAHI	National School of Applied Sciences. Chouaib Doukkali University. El Jadida
Tue.P.30	Self-similarity in quasi-periodic serial stub structure: Theory and experiment	Abdelkader	MOUADILI	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.31	WO_3 thin films deposited using low cost spray pyrolysis technique and its suitability for gas sensors applications	Abderrahim	MOUMEN	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.32	Structural and electro-optical properties of Mo-doped VO_2 films elaborated by spray pyrolysis	Asmaa	MRIGAL	Faculty of Sciences. Ibn Tofail University. Kenitra
Tue.P.33	Theoretic Description of Structural Electronic and Magnetic Properties of Vanadium Dioxide Phases	Asmaa	MRIGAL	Faculty of Sciences. Ibn Tofail University. Kenitra
Tue.P.34	Ab-initio calculation of the structural and electronic and optical properties of the CdS and SnO_2 components	Youssef	NOURI	Laboratoire ERDyS, Université Hassan II Casablanca
Tue.P.35	Treatment of refinery effluents by coagulation-flocculation: influence of the order of introduction on the efficiency of pollution elimination and the production of sludge	Hasna	OUBRAYME	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.36	Index SPI tool for evaluating curtness in Morocco	Sahar	RAKKA	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.37	Experimental Study of magnetic pulse welding generator	Khadija	SOFI	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.38	Theoretical and numerical modeling of a pyroelectric material for thermal energy harvesting	Yassine	TABBAI	National School of Applied Sciences. Chouaib Doukkali University. El Jadida

Tue.P.39	Kinetic adsorption of Salicylic Acid and Clofibrilic Acid onto Modified Activated Carbon	Nawal	TAOUFIK	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.40	Integration study of simulator energy and information networks in the electrical system	Abdelhak	TAZI	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.41	Elaboration and characterization of CZTS thin films by electroplating for photo-voltaic applications	Hanae	TOURA	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.42	Comparative study between two DC/DC converters topologies	Ghizlane	TRAIKI	ENSET Mohammedia. Hassan II University of Casablanca
Tue.P.43	Preparation and characterization of ZnO thin films deposited by sol-gel spin and dip coating method	Abdallah	ZAHRANI	Faculty of Sciences and Techniques Mohammedia. Hassan II University of Casablanca
Tue.P.44	Hydroxyapatite/Alumina and Hydroxyapatite/Zirconia bio-composites: Synthesis and characterization	Mohamed	ES-Saddik1	Faculty of Science, University of Ibn-Zohr, Agadir